Yes, acetic acid gas (released by acetoxy-cure silicone sealants as they cure) can react with alkaline substrates like concrete and masonry, leading to bond failure, surface corrosion, or localized chalking/degradation. However, "blooming"—the cloudy, white, or hazy discoloration on a sealer—is typically caused by trapped moisture, moisture vapor outgassing, or over-application rather than airborne acid gas. LinkedIn · Guangzhou Joi... +3

Why Acetic Acid Harms Concrete Substrates

- **Chemical Incompatibility:** Acetic silicone sealants are acidic and reactive. Manufacturers explicitly warn against using them on alkaline surfaces like cement, concrete, and stone because the acid reacts with calcium compounds. Chemistry Stack Exchan... +2
- **Adhesion Loss:** The reaction creates a weak boundary layer at the interface, causing the sealant or adjacent coatings to lose adhesion or debond rather than form a true bloom. LinkedIn · Guangzhou Joint...

Common Causes of Concrete Sealer Blooming (Hazing/Clouding)

- **Moisture Trapping:** Water vapor or dampness rising through the concrete slab becomes trapped under a non-breathable acrylic or solvent-based sealer film. ChemMasters +1
- **Improper Application:** Applying sealer too thickly or under direct, hot sunlight causes the top layer to skin over too fast, trapping solvents or moisture inside. ChemMasters
- **Aqueous/Chemical Reaction:** Residual cleaning acids or high humidity during application can cause polymers in the sealer to blush or turn white.